

SNOWFALL

Over most of the northern and central districts from the Rocky Mountains eastward snow was observed earlier than ever before known and the depths were the greatest of record for October.

Monthly amounts ranging up to 2 feet or more were reported from the eastern slopes and foothills of the Rocky Mountains from Colorado to Montana, and from 5 to 10 inches or more in portions of the Great Lakes, New York and New England. Farther south amounts were usually less, but in practically all cases the depths were far greater than ever before measured in October, and in many instances it was the first occurrence of record in that month.

In the vicinity of Washington, D. C., it is recorded that snow fell on October 24, 1853, to varying depths, Winchester, Va., reporting a "remarkable snowstorm, 10 to 12 inches," and "deep snow" was reported from other points near-by.

West of the Rocky Mountains snowfall occurred only at the higher elevations and the depths were not unusual for October.

RELATIVE HUMIDITY

Over a narrow area along the entire Atlantic coast and including the Florida peninsula the average relative humidity was slightly less than normal, and similar conditions existed along the Pacific coast from central California to Washington. Otherwise the relative humidity was above normal in all parts of the country, the excesses being conspicuously large in the regions with a corresponding deficiency in temperature.

SUNSHINE AND CLOUDINESS

October is usually a month of abundant sunshine, often attended by a hazy or slightly smoky condition of the atmosphere and generally associated with moderate warmth, frequently constituting a near return to summer. No such conditions were experienced during this month. The amount of sunshine in many sections was only a small fraction of the possible, and cloudy weather predominated to an unusual degree over the eastern two-thirds of the country. Over the districts to westward of the Rocky Mountains, however, conditions were largely reversed and locally the amounts of sunshine were far in excess of those usually received.

SEVERE LOCAL HAIL AND WIND STORMS

The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path ¹	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Detroit, Mich.	2					Thunderstorm and downpour.	Several districts flooded; telephone and electric power service interrupted; traffic delayed; some damage by lightning.	Free Press (Detroit, Mich.)
Keokuk, Iowa.	2-3					Thunderstorm and hail.	600 panes of glass broken in greenhouse; other minor damage.	Official, U. S. Weather Bureau.
Gevin (near), Iowa.	3	2 a. m.	880		\$3,000	Small tornado.	Outbuildings, orchards, and timber damaged; much corn blown down. Path 1½ miles long.	Do.
Greenfield Ill.	3					Electrical.	36 hogs killed by lightning; no other loss reported.	Do.
Atlanta, Mo.	4	1 p. m.	1,760-2,200		5,000	Thunder squall and hail.	Buildings unroofed, chimneys blown down; crops damaged to the amount of \$1,500 by hail. Path 20 miles long.	Do.
Memphis, Tenn.	4				1,500	Thunderstorm.	Houses, electric light and power lines damaged.	Do.
Fresno (near), Calif.	5	4-5 p. m.	3,520		50,000	Heavy hail and rain.	Aside from hail damage, there was considerable rain damage to grapes on vines, also to basement stocks of merchandise by flooding. Path 20 miles long.	Do.
West Chesapeake Bay section, Md.	10					Wind.	Corn in shocks damaged, trees uprooted and some fruit blown off; communication interrupted locally.	Do.
New Jersey (northern half of)	10			1		Severe wind.	Insecure structures wrecked; plate glass windows broken; branches torn from trees and shrubbery. Live wire caused 1 death at Orange.	Official, U. S. Weather Bureau.
New York, N. Y., and vicinity.	10			5		Wind.	Many small boats and several barges wrecked on the Hudson; wire service impaired; 18 boats valued at \$500,000 swept on rocks off Kingsland Point.	Boston Transcript (Mass.).
New England.	10-11			1		Wind, rain, snow, and electrical.	Heavy property damage; apple crop suffered severely; much wire damage; along coast ships held up and small craft in trouble. Many serious accidents occurred.	Boston Transcript (Mass.). Hartford Courant (Conn.);
Comite (near), La.	14	8:37 a. m.		5	1,200	Small tornado.	Small home destroyed; other houses moved from foundations; trees damaged; storm covered about an acre.	Official, U. S. Weather Bureau.
Southern Oklahoma.	14	3:30-7:30 p. m.	2-12 mi.		1,262,000	Severe wind and hail.	One person injured at Pittsburg where storm was most severe; extensive property and crop (principally cotton) damage; damage by hail estimated at \$1,035,000.	Do.
Fisher, Hall, Jones, and Childress Counties, Tex.	14					Hail and wind.	Many acres of cotton and feed crops ruined; loss in Hall County alone estimated at \$1,000,000.	Dallas Morning News (Tex.)
Clarksville, Tenn.	16					High winds.	Slight damage reported.	Official, U. S. Weather Bureau.
Alloway, Perry Co., Ky.	16			1	5,000	Small tornado.	Nine persons injured in mining camp.	Do.
Warren County, northeast, into Estill County, Ky.	16		150-440	1	250,000	Tornado.	Heaviest damage in Warren, Hart and Marion Counties; 11 persons seriously and 33 slightly injured.	Do.
Northern Michigan.	18-19					High wind, and snow.	Many lake wharves damaged; elevator tower demolished; navigation completely halted; much damage to overhead wires; traffic impeded.	Official U. S. Weather Bureau; Ludington Daily News. (Mich.)
Buffalo, N. Y. and vicinity.	19					High wind.	Trees, wires, and signs blown down; maximum wind velocity 74 miles.	Official U. S. Weather Bureau.
Calhoun, Ga.	19					Moderately high winds.	Dwellings and barns damaged.	Do.
Vermilion Parish, La.	24	11:30 p. m.				Wind squall.	Houses moved from foundations; trees injured.	Do.
Calhoun County, Ala. (north part of).	24	P. m.				Thunderstorm.	Hotel at Piedmont Springs damaged, trees and several houses blown down; communication hampered. Five persons injured near Maxwellborn.	Anniston Star (Ala.)
Allentown, Pa.	24-25					High winds and rain.	Orchards considerably injured; telephone and telegraph communication interrupted; lighting system temporarily out of use.	Official, U. S. Weather Bureau.
Berks County, Pa.	24-25					High winds and rain.	Much minor damage reported.	Do.

¹ Yards when not otherwise specified; "mi" signifies miles.

Severe local hail and wind storms—Continued

Place	Date	Time	Width of path	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Philadelphia, Pa.	24-25					Wind and rain	Trees uprooted, obstructing traffic; other minor damage.	Official, U. S. Weather Bureau.
Port Arthur, Tex.	24					Thunderstorm	Electric lines affected.	Do.
Crenshaw, Pike, southern Bullock and northern Barbour Counties, Ala.	25	2-4 a. m.	400	18	\$250,000	Tornado	Very heavy property damage; many persons injured. Path, 75 miles long.	Do.
Abbeville, Anderson, Greenville, Laurens and Spartanburg Counties, S. C.	25	5:40-7 a. m.	300-8,800		109,300	Thunderstorm, hail, and destructive winds.	Extensive property damage over path 50 miles long; 51 persons injured.	Do.
Woburn, Mass., and vicinity.	25	3:13 p. m.		1		Tornado	75 buildings wrecked; 6 persons injured while many narrowly escaped death.	Boston Post (Mass.); Boston Daily Globe (Mass.).
Atlanta, Ga.	25					Wind	Large church tent blown down.	Official, U. S. Weather Bureau.
Baltimore, Md.	25	P. m.		1		Wind	17 Navy seaplanes torn from anchorage off Dundalk; all damaged, 2 wrecked beyond repair; minor damage in city; several persons injured.	Do.
Maryland	25				8,300	Wind	Property and crop damage at Belair, Delmar, Keymar, Millsboro, Maryland Line, Massey and Saint Inigoes; also in parts of Washington, Frederick and Carroll Counties.	Do.
New Jersey (southern half and coast section).	25			1		Severe wind	Some buildings damaged, others wrecked; farm buildings, shore cottages, and wires hard hit.	Do.
New York, N. Y., and vicinity.	25					Strong winds	Considerable damage to buildings and shipping in city; minor damage in other parts of State.	Do.
Piedmont, Wyo.	29			1		Thunderstorm	No property damage reported.	Do.

STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

October, 1925, was a stormy month, and warnings were required for the Atlantic coast north of Cape Hatteras in connection with seven storms. Ordinarily, October is a rather quiet month in the Washington forecast district, with few disturbances of consequence crossing the country and with many pleasant days and few rainy. Quite different conditions prevailed during the month just ended. At Washington, D. C., there were 14 days with precipitation of 0.01 inch or more, as compared with a normal of 9 days, and only 4 clear days, as compared with a normal of 14. Moreover, the temperature was above normal on only 6 days, while it was 12 or more degrees below normal on 7 days. In spite of the unseasonably low temperatures, killing frost did not occur at Washington until the 28th, the average date of the first killing frost in autumn being October 20.

The first storm of consequence developed over the middle Atlantic States during the 9th and moved rapidly northeastward. Storm warnings were ordered displayed at 9.30 p. m. from Jacksonville, Fla., to Eastport, Me. The highest recorded wind velocities were: Sixty miles from the northwest at Cape Henry, Va., 80 miles from the northwest at New York City, and 52 miles from the east at Eastport, Me.

The least important of the seven storms referred to was that of the 14th-15th, for which storm warnings were issued from Delaware Breakwater to Eastport. The only verifying velocity reported was 48 miles from the southeast at Atlantic City, N. J.

During the remainder of the month storms followed in rapid succession, and warnings were issued as follows: 16th, 10 p. m., Delaware Breakwater to Eastport, Me.; 17th, 10 a. m., south of Delaware Breakwater to Cape Hatteras; 19th, 10.30 a. m., Cape Hatteras to Boston, Mass.; 24th, 4 p. m., Delaware Breakwater to Eastport, Me., and 25th, 10 a. m., south of Delaware Breakwater to Wilmington, N. C.; 28th, 4 p. m., Cape Hatteras to Block Island, R. I.; 30th, 4 p. m., Jacksonville, Fla., to Boston, Mass. These warnings were all well verified. The most severe storm was that of the 24th-25th. A disturbance that developed over Oklahoma and northern Texas during the 22d-23d had advanced to extreme southern Illinois by the morning of the 24th and to Ohio by the night of the same date. Up to this time it was only of moderate intensity, but there were indications of increased development, so, southeast

storm warnings were ordered displayed at 4 p. m. from Delaware Breakwater northward. During the night of the 24th the disturbance increased greatly in intensity and on the morning of the 25th, it was centered over western New York as a severe storm with strong indications that a secondary disturbance was developing over the middle Atlantic States. This secondary quickly formed and at noon was centered near New York City with a barometer reading of 29.10 inches. The secondary, as was expected, soon became the principal storm, and moved very rapidly northeastward, the center being near Eastport at 8 p. m. with a barometer reading of 28.80 inches. During the ensuing 24 hours this severe storm moved rapidly northeastward over the Canadian Maritime Provinces. The following high wind velocities were reported: 88 miles from the northwest at New York City, 64 miles from the southwest at Sandy Hook, Block Island, and Atlantic City, and 60 miles from the southwest at Cape Henry.

Small-craft warnings were issued as follows: 16th and 30th, Pensacola, Fla., and Mobile, Ala., sections; 25th, Charleston, S. C., Savannah, Ga., and Jacksonville, Fla., sections.

Frost warnings were issued for some part of the Washington district on 14 dates during the month, the most important being those issued on the 9th, 10th, 19th, 20th, and 28th. Frost had occurred by the end of the month as far south as the central portions of Mississippi, Alabama, and Georgia.

Cold-wave warnings were issued for western Pennsylvania, southern Ohio, eastern and central Kentucky, and northwestern West Virginia on the 28th, and for southern Alabama, extreme northwestern Florida, and the Mississippi coast on the 30th. These warnings were only partially verified.—C. L. Mitchell.

CHICAGO FORECAST DISTRICT

Rarely in the past has October in the Chicago forecast district been so cold and inclement in general as was the month under discussion. As a matter of fact, this was the coldest October in more than half a century over virtually the entire district. Moreover, there was a marked excess of cloudy, wet weather, and over large areas the snowfall was the heaviest ever recorded for October. So-called "Indian summer" weather was almost totally lacking, a feature that was the subject of widespread comment and discussion, both on the part of the public and press.